Patent Claims

1. Method of producing a corrosion-resistant and oxidation-resistant coating for a component, characterized by the following steps:
   a) preparing a paste which contains, in addition to a binder, exclusively at least one metal of the platinum group as the metal,
   b) applying the paste to the component in at least some areas,
   c) drying and heat-treating the component coated with the paste in at least some areas,
   d) then aluminizing at least some areas the component that has been coated with the paste in at least some areas.

2. Method according to Claim 1, characterized in that the paste is diluted to a dilute paste before applying it.

3. Method according to Claim 1 or 2, characterized in that the paste contains exclusively platinum and/or palladium as the metal.

4. Method according to one or more of Claims 1 through 3, characterized in that the paste contains exclusively platinum as the metal and terpineol as the binder.

5. Method according to one or more of Claims 1 through 3, characterized in that the paste contains exclusively platinum and palladium as the metals.

6. Method according to Claim 5, characterized in that the undiluted paste has the following composition:
   palladium in an amount of 25-35 wt%,
   platinum in an amount of 25-35 wt%,
   terpineol in an amount of 15-25 wt%,
   resin in an amount of 10-20 wt%, and

turpentine in an amount of 1-5 wt%.

7. Method according to one or more of Claims 1 through 3, characterized in that the paste is diluted with a turpentine oil to form a paste having a low-viscosity paste.

8. Method according to one or more of Claims 1 through 5, characterized in that the paste is applied to the component by spraying, painting, dipping, flooding or screen printing.

9. Method according to one or more of Claims 1 through 8, characterized in that the component is blasted before applying the paste.

10. Method according to one or more of Claims 1 through 9, characterized in that the metal or each metal contained in the paste diffuses into the component during heat treatment of the component coated with the paste in at least some areas.

11. Method according to one or more of Claims 1 through 10, characterized in that the method steps a) through b) are repeated until the component has a defined platinum and/or palladium coating, and then the aluminizing is performed.

12. Method according to one or more of Claims 1 through 11, characterized in that the component is a turbine blade of a gas turbine, the paste being applied to areas of the blade that are not exposed to flow.

13. Method according to Claim 12, characterized in that the area not exposed to flow is the damper pocket area of the turbine blade.

14. Device for producing a corrosion-resistant and oxidation-resistant coating for component (10) of a gas turbine, in particular for coating a damper pocket area of a turbine blade

characterized by a housing to accommodate the component (1) coated with a paste in at least some areas, whereby the component (10) is positionable in the housing such that an aluminizing paste (15) together with a covering powder (16) to be introduced into the housing acts on the area (12) of the component that is to be coated under the influence of gravitational force.

15. Device according to Claim 14, characterized in that the housing has a through-opening in a bottom area so that in the case of a component (10) designed as a turbine blade, a blade paddle (13) protrudes downward through the through-opening and a damper pocket area (12) of the turbine blade that is to be coated protrudes together with the blade footing (14) into the housing.

16. Device according to Claim 14 or 15, characterized in that a charging mechanism (17) is positioned in the area of a station (20) by means of which the housing together with the component (10) positioned in the housing being moved through said station, whereby the feeding mechanism (17) is used to introduce the aluminizing paste (15) and the covering powder (16) into the housing.

17. Component, in particular turbine blade of a gas turbine, having a corrosion-resistant and oxidation-resistant coating, characterized in that the coating comprises a paste containing at least one metal of the platinum group, whereby the paste is applied to the component in at least some areas and whereby an aluminizing layer is applied to the areas of the component coated with paste.

18. Component according to Claim 17, characterized in that the paste contains exclusively platinum and/or palladium as the metal in addition to a binder.

19. Component according to Claim 18, characterized in that the paste contains exclusively platinum as the metal and terpineol as the binder.

20. Component according to one or more of Claims 17 through 19, characterized in that the component is a turbine blade of a gas turbine, the paste being applied to those areas that are not exposed to flow.

21. Component according to one or more of Claims 17 through 20, characterized in that the coating is prepared according to one or more of Claims 1 through 13.